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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,064	03/24/2004	David E. Heckerman	MS77398.05/MSFTP357USB	4192
27195 7590 01/02/2008 AMIN, TUROCY & CALVIN, LLP 24TH FLOOR, NATIONAL CITY CENTER 1900 EAST NINTH STREET CLEVELAND, OH 44114			EXAMINER ALAM, SHAHID AL	
			ART UNIT 2162	PAPER NUMBER
			NOTIFICATION DATE 01/02/2008	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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**Supplemental  
Notice of Allowability**

Application No.

10/808,064

Examiner

Shahid Al Alam

Applicant(s)

HECKERMAN ET AL.

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/25/2007.
2. ☒ The allowed claim(s) is/are 69-71, 73, 74, 76-83, 87 and 88.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**SHAHID ALAM  
PRIMARY EXAMINER**

## DETAILED ACTION

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Bhavani Rayaprolu on October 25, 2007.

The application has been amended as follows:

**In the claim:** Please cancel claims 75, 84, 85 and 86.

Please amend claims 69, 76 and 87 as follow:

69. A computer-implemented system for automatically categorizing unknown incoming data and a category visualization (CV) system that displays a graphic representation of each category as a hierarchical map, comprising:

- a node corresponding to each base category;

- nodes corresponding to combinations of similar categories;

- a leaf node corresponding to a base category, the leaf node is positioned as a cluster of nodes at a lowest level of the hierarchy wherein combinations of similar categories are positioned on top of the leaf node, forming successively higher levels of the hierarchy;

- a root node corresponding to a category that contains all records in a collection, the root node forms top of the hierarchy;

a non-leaf node corresponding to each combined category, wherein similar base categories are combined into a combined category;

wherein each non-leaf node has two arcs that connect the non-leaf node to two nodes corresponding to sub-categories of the combined category; and

wherein if a node is selected, the system displays additional information about corresponding category, the additional information is at least one of number of records in the category or characteristic attributes of the category, and

wherein if an arc is selected, the system displays information relating to categories connected by the arc, such as similarity value for the connected categories.

76. The system of claim ~~75~~ 69, wherein similarity value refers to a rating of the differences between attribute values of records in one category and attribute values of records in another category, a high value for similarity indicates that there is little difference between the records in the two categories.

87. A computer-readable storage medium containing a plurality of categorized data records and a computer-implemented method of calculating and displaying a graphic representation of various characteristics and discriminating information for each category, comprising:

providing nodes that represent each base category;

providing nodes that represent combined categories, wherein combinations of similar categories are grouped together to form the combined categories;

utilizing a leaf node to form the bottom of the graphic representation;  
utilizing a root node to form the top of the graphic representation;  
connecting nodes representing sub-categories of a combined category via arcs;  
combining the two base categories that are the most similar into a combined category;  
repeating process of combining similar categories until one combined category represents all records in a collection; and  
allowing a node to be selected, wherein the system displays additional information about corresponding category, the additional information is at least one of number of records in the category or characteristic attributes of the category, and  
allowing an arc to be selected,  
wherein the system displays information relating to categories connected by the arc, such as similarity value for the connected categories.

### **Reasons for Allowance**

2. The following is an examiner's statement of reasons for allowance:

Claims 69 – 71, 73 – 74, 76 – 83 and 87 – 88 (re-numbered as 1 – 15) as amended are allowed over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

**Contact Information**

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shahid Al Alam whose telephone number is (571) 272-4030. The examiner can normally be reached on Monday-Thursday 8:00 A.M.- 4:00 P.M.. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Shahid Al Alam  
Primary Examiner  
Art Unit 2162

December 15, 2007